

Ideas to broaden Electronic Democracy

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***Abstract.** This paper discusses the views, outcomes and future work of AGORA research project, being conducted at Federal University of the State of Rio de Janeiro. The research has as main objective to define approaches and computational applications to support different levels of participation in democratic contexts using the federal university as its main case study environment.*

1. Introduction

The research community in Human and Social Sciences as well as Computer Science, have been discussing the potential of Information and Communication Technologies (ICTs) to promote Democracy in different social and political levels. This discussion brought to light the concept of Electronic Democracy [HAGUE, 1999] where, by the use of technology-supported environments, the relationship between society and governments can be explored, discussed and articulated.

Research work in Electronic Democracy points to a shortage of solutions that actually cope with the aims they propose, specially to the Brazilian context [SILVA, 2005]. The challenges for effective solutions are both technological as well as involving multidisciplinary issues (social, cultural and economic aspects), leading to the need of joint research with different knowledge areas like Anthropology, Sociology, Psychology among others.

2. The AGORA Project

The project AGORA has as its main objective to contribute with approaches and systems solutions to support different levels of participation in democratic contexts, using the Federal University as evaluation environment [ÁGORA, 2008].

As observed by Gomes [2004, apud: SILVA, 2005] it is possible to list 5 levels of participation in democratic context with the use of ICTs: 1) information and services availability; 2) collection of public opinion; 3) transparency and accountability; 4) deliberative democracy; and 5) direct democracy; each level empowering participation, discussion and decision making in public matters. For each one of these levels, it is

possible to discuss the potential of ICTs to address 3 main aspects: (a) the collaboration among participants [ARAUJO et al, 1997]; (b) the memory of the discussion and deliberation process [CONKLIN, 1996]; and (c) transparency of information, actions and decisions [CAPPELLI et al, 2007].

The context for experiments within Project AGORA is the Federal University of the State of Rio de Janeiro (UNIRIO). The first experiments within the project were conducted at the School of Applied Informatics (EIA) from UNIRIO. EIA is one of academic units of UNIRIO, housing the undergraduate course in Information Systems. UNIRIO and EIA are environments where the main needs and characteristics of democratic contexts (representativeness, deliberative discussions, participation and collective decision making, among others) and where the usual challenges for deploying different levels of social participation can be observed.

Initial experiments in EIA concerned to broaden participation and democracy in decision making processes (EIA council meetings) and in administrative and service processes (documents request, courses registration and administrative management). The idea was to apply approaches to identify opportunities for narrowing the distance among students (citizens) and the School Directory (government structure) turning these processes transparent and collaborative, preserving the memory of their execution. Products and outcomes of these approaches are reported as follows.

3. Broadening democracy in EIA

Diirr (2008) defined a systematic path to identify need for broadening democracy in a group or organization, through the use of ICTs. The approach comprises 3 steps: 1) understanding the environment, context and processes, in order to map responsibilities, expectations, activities and needs; 2) cultural analysis, to understand cultural aspects to evaluate if the future solution does not impact negatively existing cultural patterns; 3) requirements identification, where system requirements to address collaboration, memory and transparency are identified.

This approach had been applied in the context of decision processes within EIA-UNIRIO. The main result of this application was a better understanding of this context through process modeling and cultural analysis and the identification of a set of overall needs for broadening collaboration, memory and transparency in this context.

Engiel (2009) detailed the approach presented by Diirr (2008). It suggested the customization of a business process modeling approach, the definition of specific democracy enablers for processes [SHARP e MCDERMOTT, 2001] and the requirements identification having the process as its starting point [MKNIGHT, 2004]. The approach focused the first participation level proposed by Gomes [2004, apud: SILVA, 2005]. The detailed approach had been applied to the administrative processes of EIA, where a set of new requirements were identified and the specification of tools which could enable democracy into the analyzed processes. One of the proposed solutions, for instance, was to publish process information like activities, flows, actors with roles and responsibilities, business rules and systems for instance, through *wikis* (<http://www.uniriotec.br/mediawiki/wiki/process>), starting a discussion on the use of this social software to enlarge the participation of the EIA community in suggesting process changes and/or pointing process problems.

In this research project scope, it is also studied issues related to participation and collaboration awareness [ARAUJO, 2000], mostly in discussions and deliberations. When discussing in democratic virtual environments (or even in non virtual ones), it is difficult to understand the how opinions change and flow, especially when the discussion involves many participants, with different political views, pacts and hidden agendas [CONKLIN, 2005]. Tavares (2009) and Tavares et al (2010) discuss the development of a social network visualization tool for democratic environments. The proposal is to extract information from discussion forums or collaborative discussion environments and to present them in the form of a social network [BARABÁSI, 2003]. The visualization of the discussion social network topology will allow the awareness of hidden information such as: political coalitions, which participants are influencing the discussion, change of opinions and so forth.

4. Conclusion

The results obtained till now in the context of the research project are being applied in different domains inside UNIRIO. Particularly, the visibility of administrative processes, such as the use of research budgets (PROAP), and approaches for explaining process rules [GOMES, 2010]. It is also been discussed the implications of this visibility to learning, participation and continuous process improvement. As democracy is a continuous process of mutual understanding, it is expected that the solutions presented here will help the visibility and mapping of dialogue among different involved participants, and can be generalized to broader public areas (municipality, state or federal government) or to other public organizations.

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